

Technical, Vocational, and Career Education: Alternative Strategies to Reduce the Dropout Rate

Prepared for
**The Tennessee Council on
Vocational-Technical Education**

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TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
	List of Tables	iv
	Executive Summary	v
1	Model Dropout Programs: Introduction	1
2	Current Challenges in American Education	3
	Conditions That Cultivate Dropping Out	5
	Consequences of Dropping Out	8
3	Background to the Current Study: A Contextual Analysis of the Dropout Problem in Tennessee	11
	Findings from the Previous Study	12
4	Education Reform and Dropout Prevention	15
5	Key Resources	18
	The National Dropout Prevention Center/Network	18
	Comprehensive School Reform Program	18
	National Diffusion Network	19
	The Education Trust	20
6	Best Strategies	22
7	Lessons Learned from Current Practices	36
8	The Role of Technical, Vocational, and Career Education in Reducing Dropout Rates	39
9	Model Dropout Programs in Tennessee	43
	National Dropout Prevention Center/Network	43
	Comprehensive School Reform Models	44
	Education Trust Model Schools	44

TABLE OF CONTENTS (continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
10	Conclusions: Program, Structural, and Policy Considerations	47
	Program Considerations	47
	Structural Considerations	51
	Policy Considerations	52
	References	53
Appendix	National Dropout Prevention Center/Network Model Program Matrix	59

LIST OF TABLES

<u>Table</u>	<u>Title</u>	<u>Page</u>
1	State NDPC/N Recognized Model Programs	26
2	Overview of NDPC/N Active Model Programs	27
3	Tennessee Model Programs Selected by the National	43
4	Dropout Prevention Center/Network	
	Tennessee Model Program Descriptions of National	43
5	Dropout Prevention Center/Network Selections	
	Comprehensive School Reform Models Currently	44
6	Funded in Tennessee	
	Schools, Districts, Grades Served and Comprehensive	45
7	School Reform Models	
	Tennessee Comprehensive School Reform Model	46
	Program	

EXECUTIVE SUMMARY

In 2003, the Tennessee Council on Vocational-Technical Education (TCOVE) contracted with the Sparks Bureau of Business and Economic Research (Bureau) at The University of Memphis to identify and describe the contextual parameters of the Tennessee dropout problem from a national, regional, and statewide perspective; to identify trends in dropout statistics; to identify a practical and functional definition of dropouts and rates for Tennessee policymakers; and to identify and examine four representative local school districts in Tennessee.

The resulting report, *A Contextual Analysis of the Dropout Problem in Tennessee*, set the stage for a review of model dropout programs from across the nation with the purpose of identifying strategies that can have an impact on dropouts in Tennessee. The current study reviews only programs for in-school youth, where the event dropout rate can be most directly influenced and where school administrations, teachers, and parents can exercise the most influence and control over students' academic and personal well-being and future.

Recently, the U. S. Secretary of Education reported on the current condition of secondary education in the United States. Citing several current studies, he acknowledged that dropout rates were a continuing problem. He noted that "on time" graduation rates at our inner-city high schools were "shockingly low." Although optimistic about the nation's secondary education system as a whole, calling U. S. high schools among the finest in the world, he reported that the number of students who leave our schools ill-prepared is "staggering."

Though there is consensus among educators, policymakers, and researchers on the economic, social, and personal consequences of dropping out, the information has not been translated in a meaningful way to students who still drop out of school at an unacceptable rate. The most common reasons for dropping out are the personal characteristics of the student, social conditions, family background, and the academic history of the student, as well as the school environment and in-school behaviors of students and their peers.

The numerous and negative personal, social, and economic consequences of dropping out of high school are not acceptable. These outcomes are related to well-identified individual and social contingencies that take in economic, labor market, educational, health, legal, and individual consequences. Longstanding issues surrounding the dropout problem have fostered Congressional dropout prevention legislation and funding, resulting in a host of dropout prevention and remediation initiatives and model programs. At the state and local levels, dropout legislation initiatives and the development of model programs have proliferated at an increased rate each decade since the 1960s.

This comprehensive review of the literature on model programs designed to affect one or a combination of conditions related to the dropout problem found thousands of citations. Dropout prevention programs have been the focus of policy attention for three decades, but a trend of rising event and status dropout rates during the urban renewal of the 1970s coupled with concerns over educational equity, particularly in large cities, culminated in Congressional attention and a call to action beginning in the mid-1980s and continuing today.

The key resources employed to initiate research on this topic included:

- The National Dropout Prevention Center/Network
- Comprehensive School Reform Program
- National Diffusion Network
- The Education Trust

Primary subject areas reviewed in the investigation of strategies and practices included:

- Characteristics of effective schools, practices, and strategies;
- Data management and strategic deployment;
- Alternative school practices;
- Evaluating effective practices/evaluating model programs;

- Determining effective strategies;
- Transforming schools;
- Technology and dropout strategies;
- Vocational education and dropout prevention;
- Historical dropout and completion trends;
- The current status of American education, educational legislation, and national initiatives;
- High performing schools; and
- National and state report cards on the current status of education in America.

Throughout the history of U.S. education, vocational-technical education has provided solutions to problems. However, in the current educational environment, as we search for strategies to combat dropout problems in a world dominated by high-skill, high-technology economies, focusing on the labor market and career and vocational-technical education offers important possibilities for at-risk students. Recent trends and statistics support the widely held belief that career and technical education can help reduce dropout rates among at-risk students and can help improve retention and completion.

In Tennessee, as in most states, any number of model programs may be operational at any point in time. Currently in Tennessee middle and high schools, the literature and model program databases identify 19 programs active at 38 sites in 12 counties.

The dropout problem is complex, and solutions are multi-faceted. There is no single, perfect, easy, or quick-fix answer to all the problems that inhabit the dropout landscape. No two individual dropouts are alike, and each situation is driven by a different mix of personal, social and family, academic, school environment, and in-school behavioral factors that interact within the school setting and in the psyche of the student. Programs that are effective with a group characterized by one set of dominant characteristics may not have applications appropriate for another.

In the course of reviewing thousands of research reports, academic studies, government documents, databases, program descriptions, news releases, and conference proceedings in this research effort, this study concludes that potential remedies may be found in a formula that has to-date been underutilized, underreported, or unrecognized in the current literature. The configuration exploits a number of currently successful elements and involves innovative program, structural, and policy considerations.

SECTION 1. MODEL DROPOUT PROGRAMS: INTRODUCTION

If standards and requirements are raised without support for school improvement and without personal attention to the varied populations of high-risk students and their specific learning requirements, the effect will be to push more young people out of school (Woods, 1995).

As states impose new standards and high stakes tests for graduation and promotion, some predict that our dropout problem will only get more dire. Our challenge is to raise academic standards for all students, while simultaneously ensuring that at-risk students receive the support they need to meet the standards and stay in school (Swartz, 2001).

In 2003, the Tennessee Council on Vocational-Technical Education (TCOVE) contracted with the Sparks Bureau of Business and Economic Research (Bureau) at The University of Memphis to identify and describe the contextual parameters of the Tennessee dropout problem from a national, regional, and statewide perspective; to identify trends in dropout statistics; to identify a practical and functional definition of dropouts and rates for Tennessee policymakers; and to identify and examine four representative local school districts in Tennessee. The resulting report set the stage for this current review of model dropout programs from across the nation and in the state to identify strategies that can have an impact on dropouts in Tennessee.

The United States has a long history of initiatives intended to help students overcome educational challenges and reach individual, community, and national goals. These antecedents are evidence of the nation's commitment to maximizing current and future economic and social benefits that accrue from educational achievement. School dropout prevention has been a consistent priority, even in decades where dropout rates were low and declining.

The initial years of public high school began auspiciously. Two years after the opening of the first public high school in 1821, 43.0 percent of the first class had dropped out (Stevens & Van Til, 1972). By 1900, less than 12.0 percent of high-school-aged youth were enrolled in school, and only about 10.0 percent of males earned a high school diploma (Thornburg, 1974; Bachman, Green & Wirtanen, 1971). Only in the 1950s did the dropout rate fall below 50.0 percent (Weber, 1984). High school completion rates for individuals 25 years and over have improved steadily since 1940, ranging from 24.4 percent in 1940 to 84.1 percent in 2002, suggesting a corresponding decrease in the high school dropout rate. And, in fact, dropout rates have been declining generally and have stabilized at low levels over most of the past three decades (Kaufman, Alt, & Chapman, 2001). So, why is there this continued national, state, and local passion for dropout prevention, recovery, and remediation? The primary reasons are: (1) a national and historical commitment to universal education; (2) a cultural commitment to improved personal and social quality of life; (3) a recognition of the economic costs of high school drop out to the individual, to the local community, and to the nation; and (4) the pervasive acknowledgment that dropout rates are a proxy for systemic and personal failure (Harrison, 2004).

SECTION 2. CURRENT CHALLENGES IN AMERICAN EDUCATION

This is an era of danger for at-risk students attending schools that are not able or prepared to manage student strengths to offset the influences of low socioeconomic status, minority status, family instability, or English language proficiency. Speaking at the High School Leadership Summit in Washington, D.C., in October 2003, the U.S. Secretary of Education reported on the current condition of secondary education. Citing several recent studies, he acknowledged that dropout rates were a continuing problem, noting that “on time” graduation rates at our inner-city high schools are “shockingly low.” Although optimistic about the nation’s secondary education system as a whole, calling U.S. high schools among the finest in the world, he reported that the number of students who leave our schools ill-prepared is “staggering.” Acknowledging the importance of the correlation between education and economic viability, the secretary said that “. . . Our economic and global leadership depend on having the finest education system possible.” He said a two-tiered education system existed, where a fortunate few receive the finest education in the world and for others—disadvantaged, high-risk, low-income—the system underperforms (U.S. Department of Education, 2003).

In late October 2003, the Deputy Assistant Secretary for Vocational and Adult Education voiced concern over the decline in reading scores on the latest assessment of educational progress. He noted that the scores did not include the reading performance of individuals who had dropped out and reported the department’s concern over alarmingly high dropout rates reported for some urban centers. Interestingly, he postulated that the problem partially resulted from high school models that were based on labor market conditions of the mid-1950s, where 60.0 percent of students were held in high school for social reasons to keep them out of a labor market packed with veterans from the World War II (U.S. Department of Education, 2003). Though overstated, the assistant secretary’s argument explaining intolerance for underperformance is again evidence of our educational policymakers’ focus on making the American secondary education system live up to its worldwide reputation for

excellence. Woods (1995), paraphrasing Carson, Huelskamp, and Woodall (1991), said that the absolute number of dropouts was not the issue. The world has changed, and the labor market's current employment needs will not "tolerate dropout rates that have not changed over the last 20 years" (Woods, 1995).

The history of secondary school educational policy in this country has been to design schools, programs, and curricula that will insure the success of every student in our high schools. Dropouts are an unacceptable condition in that philosophical framework. The longstanding issues surrounding the dropout problem have fostered Congressional dropout prevention legislation and funding resulting in a host of dropout prevention and remediation initiatives and model programs. At the state and local levels, dropout legislation initiatives and the development of model programs have proliferated with increasing vigor each decade.

As American education strives to improve each year, some efforts are designed to improve the system as a whole, while other initiatives are promoted to address specific problems that consistently nettle the system—like dropouts. These are the model programs that are proposed and funded to demonstrate that they can improve the condition they were designed to correct—either in part or comprehensively. These programs are held up as models because they usually attack some aspect of the problem in a novel way, evaluate outcomes, and present the successful aspects of their effort for review and replication in schools facing a comparable situation. Model dropout programs, for example, have been designed over the years to prevent dropping out by providing academic support, personal direction and attention, a more conducive school environment and culture, and enlisting parental involvement. Strategic interventions have included prevention programs that focus on in-school youth with academic, classroom, or school problems; efforts focusing on in-school youth with behavioral problems or who may be experiencing a variety of personal problems; recovery programs that focus on 16-to-24-year-olds who have dropped out of school; and blended programs that concentrate on in- and out-of-school youth and may approach a number of problems with a variety of intervention techniques. The current study will review programs for in-school youth, where the event dropout rate can be most directly influenced and where

school administrations, teachers, and parents can exercise the most influence and control over students' academic and personal well-being and future.

Conditions That Cultivate Dropping Out

For the past two decades, educational researchers have produced a constant flow of studies on the reasons and conditions that contribute to a student becoming a dropout (McLanahan, 1985; Gruskin, Campbell, & Paulu, 1987; Haveman, Wolf, & Spalding, 1992; Hauser, 1997; Kaufman, Alt, & Chapman, 2001.) Though there is consensus among educators, policymakers, and researchers on the economic, social, and personal consequences of dropping out, the information has not been translated in a meaningful way to students who still drop out of school at an unacceptable rate. The most common reasons for dropping out fall into the following categories: personal characteristics of the student, social conditions and family background, academic history, school environment, and in-school behaviors.

The National Dropout Prevention Center/Network (NDPC/N), the National Center for Education Statistics, and the U.S. Department of Education have summarized findings from volumes of research studies on dropouts. They report that the most common reasons students drop out are:

► Personal

- Friends dropped out.
- Did not like school—poor school attitude.
- Pregnancy.
- Could not get along with other students.
- Felt like they did not belong—low self-esteem.
- Illness or disability.
- Had to get a job.
- Interpersonal and communication skills weak or inappropriate.
- Violent or threatening behavior.

- Older/younger than classmates.
- Substance abuse.

➤ **Social and Family**

- Disadvantages associated with poverty.
- One parent present.
- Four or more siblings.
- Low parental education level.
- Dysfunctional home and family life.
- Cultural conflict between home and school .
- Health and nutritional problems.
- Household mobility and unstable living arrangements.
- Poor or unsafe dwelling.
- Renting.
- Poor family support or community resources.
- Speak English as a second language.
- Residence.

➤ **Academic**

- Could not keep up with school work.
- Failing grades.
- Repeating one or more grades.
- Mismatch between teaching strategy and learning styles.
- Inadequate preparation for subject matter.
- Coursework did not seem relevant.
- Poor test scores.
- Low reading level.
- Lack of individual attention from teachers.
- Failed to meet graduation requirements.

► **School Environment**

- School practices and policies.
- Ineffective discipline system.
- Low expectations.
- Could not get along with teachers.
- Could not get along with other students.
- Did not feel safe at school .
- Peer pressure against academic success.
- Classes too large.
- Too few school programs to handle at-risk students.
- Ineffective or inadequate counseling.
- Late intervention.
- Disengaged from school activities.

► **In-School Behaviors**

- Frequent absences.
- Often suspended.
- Expelled for violations of school rules or standards.

Although this list is not exhaustive, it tends to contain the most prominent motives students, educators, and researchers have identified to explain dropping out. However, there are literally hundreds of studies stretching back decades that examine most imaginable nuances of the reasons categorized above. Studies have explored almost every permutation and/or combination of issues suggested by these reasons to understand the origins and motivating factors as to why students drop out. Most have valid conclusions and sound recommendations and, for the most part, the studies contain utilitarian policy implications.

Associations between dropping out of school and particular personal characteristics or circumstances; social, community, and family deprivations; academic deficiencies; problems with and in the school environment; and

student behavioral problems have all been well documented. Over the past 30 years and continuing today, the interest in dropouts remains high in spite of dropout rates that have generally declined and remained low. Why? In our changing national and global economies, we recognize the need to minimize any loss in our investment and stock in human capital. The nation remains committed to explaining why students drop out, to assigning responsibility for that choice, and to developing educational and social policies that keep students in school (Harrison, 2004).

Consequences of Dropping Out

The consequences of dropping out of school have been well documented (Asche, 1993; Becker, 1964; Blaug, 1991, 1970; Grubb, 1999; Jencks, 1979; Raudenbush & Kasim, 1998; Rumberger, 1987; Stallman, 1991; and Weber, 1984 and 1986). These outcomes are related to well-identified individual and social contingencies that take in economic, labor market, educational, health, legal, and individual consequences. These include:

- A work history marked by depressing earnings and dismal labor market prospects.
- A pattern of poor labor market attachments and substantially lower monthly, annual, and lifetime earnings compared to high school and college graduates.
- A lifetime of irregular or infrequent work, frequent layoffs, and low-wage jobs with few or no benefits.
- Current employment opportunities are limited for dropouts because today's labor market requires increased literacy, computational skills, technological skills, and the ability to engage in lifelong learning.
- Low personal incomes translate into lost revenue sources through taxes for local, state, and federal governments. The dropout class of 2002 was estimated to cost the nation \$3.5 billion in lost lifetime earnings and unrealized tax revenues (Harrison, 2004).
- Annual average incomes among dropouts are one-third to two-thirds lower than graduates' incomes. This income gap will widen. As the

economy becomes more global and technology-dependent, dropouts will be competing against people from low-wage regions with much lower living standards who are better educated and possess superior technology skills.

- Unemployment levels among dropouts are above 30.0 percent at any point in time.
- Participation in mainstream activities like church attendance, volunteerism, civic responsibilities, cultural involvement, and children's recreational and school activities is almost nonexistent among dropouts.
- Personal and community health problems for dropouts are above average.
- Reliance on government benefits is high, and unlike most citizens, dropouts are more likely to rely on welfare and other social services throughout their lives.
- High-risk engagement opportunities are more likely to be followed among dropouts—premature sex, young pregnancies, criminal activities, drug and alcohol abuse, and teen suicide are significantly higher among dropouts.
- Legal problems related to the high crime rate are associated with dropping out. Individuals who leave school without a diploma are likely to engage in criminal activities at some point in their lives. Over 80.0 percent of inmates in the prisons across America are high school dropouts.
- An intergenerational history of poor academic performance and quitting school is common among families of dropouts. Hauser, Simmons, and Pager (2001) reported in their study of over 20 years of high school dropout data that the single strongest predictor of dropping out was whether or not the mother completed high school.
- Between 1989 and 1998, high school dropouts were three times more likely to fall into poverty than were graduates (Bureau of Labor Statistics, 2002).

- Average hourly wages for high school dropouts fell by nearly 20.0 percent in the 30 years between 1970 and 2000 (U.S. Bureau of Labor Statistics, 2002).
- The deterioration of the family and family instability have been linked to the poorly educated workers.
- Over the past 25 years, while earnings among various education levels have risen, the converse is true among the least educated. By 1975, the least educated were earning 0.9 times the wages of a high school graduate; this had fallen to 0.7 times the earnings of high school graduates by 1999 (Day & Newberger, 2002).
- Individuals holding Bachelor degrees can expect to double the lifetime earnings of dropouts, and advanced and professional degree holders will earn from 2.5 to 4.4 times the lifetime earnings of non-high school graduates (Day & Newberger, 2002).

Clearly, the consequences of dropping out of high school are not acceptable. The longstanding issues surrounding the dropout problem have fostered Congressional dropout prevention legislation and funding, resulting in a host of dropout prevention and remediation initiatives and model programs. At the state and local levels, dropout legislation initiatives and the development of model programs have proliferated at an increased rate each decade since the 1960s.

SECTION 3. BACKGROUND TO THE CURRENT STUDY: A CONTEXTUAL ANALYSIS OF THE DROPOUT PROBLEM IN TENNESSEE

In 2004, *A Contextual Analysis of the Dropout Problem in Tennessee* was produced, with one purpose of that study being to set the stage for research examining model programs from across the nation to identify strategies that might have an impact on potential or current dropouts. The Tennessee Council on Vocational-Technical Education contracted with the Sparks Bureau of Business and Economic Research to:

- Identify and describe the contextual parameters of the Tennessee dropout problem from a national, regional, and statewide perspective;
- Identify trends in dropout statistics;
- Identify a practical and functional dropout definition and rate that Tennessee policymakers can employ to respond to current dropout conditions; and
- Identify and examine event dropout rates in four representative local school districts in Tennessee.

This study relied primarily on data from the National Center for Education Statistics (NCES). The NCES developed and utilizes standardized event dropout definitions, data collection procedures, and dropout rate calculations. Many of the figures, charts, and tables produced for the contextual study used data from the *Local Education Agency Universe Dropout File*. This database includes annual agency information and dropout counts and rates on each reported event dropout from grades 7 through 12 for every school and school district in the nation, as well as their enrollment base. Data are segmented by agency, state, school, grade, ethnic distinction, and gender.

The event dropout rate was identified, in contrast to other dropout rates, as having applications that provided the widest coverage of youth who still resided in a household with a parent or parents, thus yielding broader opportunities for determining the social, educational, personal, economic, and systemic origins for dropping out. Also from a programmatic perspective, in many cases these data present opportunities for a more immediate response to a problem because they are micro, annual measures.

Findings from the Previous Study

- Tennessee's event dropout rates for the years 1993 through 2000 compared favorably to those for the nation, other states, and Southern states. Between 1993 and 2000, Tennessee reported event dropout rates lower than those for the nation for four of the years and slightly above the national rate for three years. The average event dropout rate for the nation over the seven-year period between 1993 and 2000 was 4.7. The average for Tennessee during the same period was 4.8.
- Tennessee, with a mean event dropout rank of 11.1 over the period 1993-2000, had a relative rank of 15 compared to other states. This placed the state in the top half of states that consistently reported the lowest dropout rates. The states in the 2nd quartile—states with a history of event dropout rates among the lowest for the top half the nation—included Tennessee. This quartile was primarily composed of Atlantic and Northeastern states, two North central states, and Tennessee. Among Southern states, Virginia had the lowest mean relative event dropout rank, and thus rate, for the seven years under consideration, followed by Tennessee.
- In the past two school years, the Tennessee event dropout rate has declined slightly. In 2000-2001, it was 3.8, down from 4.2 reported in the 1999-2000 school year. In 2001-2002, the rate was 3.5, again down from the previous year. Tennessee's event dropout rate has declined steadily for the past five years.
- The Tennessee Council on Vocational-Technical Education selected representative school districts from each of the state's grand divisions

to investigate four primary types of districts—large central city, small metropolitan (not an urban ring), the urban fringe of a mid-sized city, and two rural county districts. The Council selected the Jackson-Madison County School District in West Tennessee as a small metropolitan district. It selected the Nashville-Davidson County School District in Middle Tennessee as a large central city district, and three smaller and more rural districts in Upper East Tennessee—Claiborne County, Hancock County and Hawkins County. Each of the areas had unique characteristics and represented a specific type district studied in dropout literature.

- The Nashville-Davidson County School District had the highest event dropout rate for the period, followed by the Hawkins County, the Jackson-Madison County, the Hancock County, and the Claiborne County school districts. Tennessee’s event dropout rates were consistently in the mid-range among the event dropout rates of the five school districts and showed a steady decline throughout the period. The Nashville-Davidson County School District produced the most consistently high event dropout rate among the rates under consideration. Most of the district declines mirrored the state in terms of rate of decline, with each having one up or one down year within the time frame.
- An index of risk factors was developed for the study. Those factors included: population size, population density, population ethnicity, school size, income, unemployment, poverty, education level, English as a second language, home ownership, and mobility status. In general in Tennessee, the more urban school districts experienced higher event dropout rates in spite of higher income, higher employment rates, less poverty, and more education. Population and community/family risk factors outweighed lower economic risk factors. At the macro level, generic community characteristics may account for those differences—negative or self-destructive engagement opportunities in more urbanized settings—particularly in areas of dense poverty; and rural counties characterized by functional communities referred to earlier. The disadvantages associated with communities of poverty where parental and social support and resources are absent have been widely described

in the literature. Thus, findings for the Tennessee school districts were not unexpected, with the exception of Hawkins County where its rural heritage, the urban fringe designation, and its homogeneity might have suggested lower event dropout rates.

SECTION 4. EDUCATION REFORM AND DROPOUT PREVENTION

A comprehensive review of the literature on model programs designed to affect one or a combination of conditions related to the dropout problem reveals thousands of citations. Dropout prevention programs have been the focus of policy attention for three decades, but a trend of rising event and status dropout rates during the urban renewal of the 1970s coupled with concerns over educational equity, particularly in large cities, culminated in Congressional attention and a call to action beginning in the mid-1980s. The current reform movement was precipitated by the publication of a report in 1983 entitled *A Nation at Risk: The Imperative for Educational Reform* (National Commission on Excellence in Education, 1983) that stirred significant debate on the quality of the American education system—identifying declining test scores, poorly prepared high school graduates, literacy problems and low academic achievement, and declining relative enrollment in post-secondary math and science courses.

The National Dropout Prevention Center/Network at Clemson University was established in 1986. In that same year, The U.S. Department of Education, Office of Educational Research and Improvement established the Urban Superintendents' Network, composed of superintendents, researchers, and practitioners, to address their main concern—the problems of dropouts. Consequently, the group released a report in 1987 entitled *Dealing with Dropouts: The Urban Superintendents' Call to Action* (OERI Superintendents' Network, 1987). At that time, government entities at all levels found “. . . accurate and reliable information with which to answer many of the questions about dropouts not available” (National Center for Education Statistics, 1989). In 1987, the National Center for Education Statistics (NCES) confirmed that state definitions of dropouts were inconsistent, noted wide disparity in dropout categories, and found the calculation and reporting of dropouts from state to state was inconsistent, incompatible, and yielded information that was unusable. Since dropout rates are considered by educators, policymakers, and the public as such an important measure of the success of the nation's

educational efforts, this deficiency was recognized as a significant problem that required correction. Hence, in 1988 Congress amended the legislation governing the National Center for Educational Statistics, mandating that it:

- Conduct an annual survey of dropout and retention rates;
- Report an annual dropout rate to Congress each year; and
- Establish a task force to find an effective methodology for measuring and reporting dropout and retention rates.

The dropout prevention and remediation movement picked up steam with the passage in 1994 of *Goals 2000: Educate America Act*. Goal 2, School Completion—among the eight national goals for education that became official national policy—stated that by the year 2000, the high school graduation rate would increase to “at least” 90.0 percent, the dropout rate would be dramatically reduced, 75.0 percent of dropouts would successfully complete their degree or equivalency, and the graduation gap between minorities and non-minorities would be eliminated.

Throughout the 1990s dropout studies and programs proliferated, and the work of the NCES, expanded through its mandate from Congress, established the Common Core of Data (CCD) that included the two primary indicators of school, program, or district performance—the number of students who complete or graduate balanced against the number who drop out. The NCES began working with state education agencies through CCD state coordinators to establish uniform definitions, reporting standards, and statistics. The dropout statistics for 1991-1992 were added in the 1992-1993 CCD school year survey and included in the *Local Education Agency (School District) Universe*. In the 1991-1992 school year, 12 of the 45 states reporting dropout data were reported by the NCES. By 1997-1998, 48 states including the District of Columbia reported dropout data to the CCD. For the 1999-2000 school year, 36 states conformed to the CCD September-to-October dropout reporting calendar, and 12 states had an alternative reporting calendar. The NCES recently concluded that the differences introduced by those alternative calendars were insignificant.

The CCD data are derived from state administrative records and are collected from approximately 90,000 public elementary and secondary schools

and approximately 16,000 school districts. The database contains statistics and information on nearly 50.0 million students and 3.0 million teachers. “CCD is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are designed to be comparable across all states” (nces.ed.gov/ccd, July 2003).

The *Local Education Agency Universe Dropout File* was implemented in the 1997-1998 school year and was constructed from the other universe databases. This file includes annual agency information and dropout counts and rates on each reported event dropout from grades 7 through 12 for every school and school district in the nation, as well as their enrollment base. Data are segmented by agency, state, school, grade, ethnic distinction, and gender.

SECTION 5. KEY RESOURCES

The National Dropout Prevention Center/Network

Established in 1986, the National Dropout Prevention Center/Network, College of Health, Education, and Human Development, Clemson University is the most widely-recognized comprehensive and accessible resource for information about dropouts and model programs. This center—with its information clearinghouse, research journal, and statistics, model programs, and demonstrated effective strategies—has become the standard repository for basic information about the U.S. dropout problem. Technical assistance and consultant information are available also. The U.S. Department of Education web site, which provides information and research on dropouts and dropout prevention strategies, prominently features NDPC/N information. The Center's widely quoted 15 strategies for dropout prevention that can positively impact high school completion rates purports to have identified singular and overlapping measures that have been successful at all school levels and in urban, suburban, and rural settings. Useful for the practitioner, each strategy is linked to resources and model programs selected from 152 model programs in 143 schools across the nation.

Comprehensive School Reform Program

Congress passed the Comprehensive School Reform Demonstration Program in 1997. This three-year federal initiative was designed to help stimulate low-performing schools through annual \$50,000 grants to implement research-based comprehensive school reform models. Three components of the effort included multi-year funding, local review and adoption of the model, and external technical assistance providers. The program shifted from a demonstration project to an ongoing Comprehensive School Reform (CSR) national effort in 2002 and continues to fund sustainable, research-based school reform models. The CSR awards database, model program and contact information, and ongoing project research information as well as CSR reports

are maintained currently by the Southwest Educational Development Laboratory.

The Southwest Educational Development Laboratory (SEDL) is a private, not-for-profit education research and development corporation based in Austin, Texas. SEDL works with educators, parents, community members, and policymakers to build or find strategies and tools to address educational problems. Currently, CSR models are active in 5,006 schools in every state, with 860 programs including 2,416 middle and high schools. Technical assistance and consultant information are available.

National Diffusion Network

The National Diffusion Network (NDN), implemented in 1974, was funded by the U.S. Department of Education to share information about effective educational programs, targeting a number of special groups including dropouts. Funding for the network ceased in 1996, but its documentation on exemplary dropout programs is still available online. In 1992-1993, the NDN reported serving 35,000 schools in all 50 states, providing in-service training to 141,000 professionals, and benefiting 6.3 million students. By 1994, NDN focused on programs targeting 15 organizational, school environment/culture, personnel, curricular, and student development areas. Ultimately, the National Diffusion Network was supplanted by the Safe, Disciplined, and Drug-Free Expert Panel that had several NDN reviewers to select exemplary and promising practices in the Safe, Disciplined, and Drug-Free Schools Program. Although many of the programs described in the current initiative have direct applications to dropout problems, the former program with a focus on exemplary dropout programs that worked provided valuable resources.

In its heyday, NDN had an army of technical assistance experts and a battery of programs from which to choose each year. To receive funding and for annual recertification reviews, each program had to survive approval from the Department of Education's program effectiveness panel that applied rigorous standards for acceptance into the program. The database is valuable because it identifies exemplary programs active in each state, in a variety of educational categories like dropouts/alternative programs, and includes target

group, program description, and evidence of effectiveness, implementation requirements, cost, services, and contacts.

The Education Trust

The Education Trust was established in 1990 by the American Association for Higher Education as a project to encourage higher education to support K-12 school reform. In the past decade, it has evolved into a recognized voice advocating high academic achievement for schools and students at all levels. For the purposes of this report, two of the available services are of particular relevance. The Education Trust houses and maintains online resources and tools that can provide researchers, community and school leaders, and policymakers with up-to-date data on academic achievement, educational attainment, and opportunity gaps nationally and for each state. Their Education Watch Interactive State and National Data Site enables users to compare current data across states and in the nation. This interactive database provides key education facts and figures on achievement, attainment and opportunity, and funding comparisons from elementary school through college.

Of particular interest to a model program developer is the baseline information contained in *Dispelling the Myth Online*. *Dispelling the Myth Online* is a database that provides the results of Education Trust's analysis of the huge, new Department of Education database (developed by the American Institute for Research) that identifies high-poverty, high-minority schools nationwide that produce exceptional student academic performance. The database houses information on 4,577 schools across the nation with top tier reading and/or math scores—for the same grade level—that had above 50.0 percent low income and were a top third performing school, and/or were above 50.0 percent African-American or Hispanic and were a top third performing school. This database enables users to identify schools in each state and retrieve very basic demographic and school characteristic data. This effort is an important first step in identifying high-performing and high-improvement schools in each state. Unfortunately, the data are wide but only surface deep. The next important step will be to identify the factors that promote high performance in characteristically low-performing schools to develop an initial set of best practices that can be replicated in other schools.

Currently, for example, the information provides the state, number, name and location of the schools, grade levels, minority/poverty demographics, geographic location, and district designation. For dropout prevention strategies, these data are valuable in identifying the school, enabling local researchers to survey the school to determine the elements responsible for performance and to evaluate applicability.

In addition to the key resources discussed above, dozens of important documents, databases, and websites were consulted and used in this review. Like so many research topics, the challenge in the current study was dealing with voluminous data and information. Procedurally, the current investigation involved compilation, determining relevance, assessment, and synthesis of wide ranging data, studies, and reports.

SECTION 6. BEST STRATEGIES

One of the frustrations that researchers face in examining literature on effective dropout programs is an absence of well-designed evaluations that provide outcome impact data to validate the program trial. Too frequently, there is an abundance of organization and process evidence but little outcome information. Also, there are few documents that provide a comprehensive look at programs that enable pre/post comparisons or between-group comparisons. Too frequently, single programs or efforts are described that have major elements that are not comparable. In spite of these limitations, common elements do exist that reflect successful alternative strategies for addressing dropout problems.

In the current study, the strategies and practices investigated in relation to dropouts and at-risk students included:

- Macro and micro data collection and utilization;
- Family collaboration;
- Community and household involvement;
- Teachers and teaching;
- School culture and environment;
- Behavioral conditions and interventions;
- Students and learning; and
- Economic and labor market preparedness.

Primary subject areas reviewed in the investigation of strategies and practices included:

- Characteristics of effective schools, practices, and strategies;
- Data management and strategic deployment;
- Alternative school practices;
- Evaluating effective practices/evaluating model programs;

- Determining effective strategies;
- Transforming schools;
- Technology and dropout strategies;
- Vocational education and dropout prevention;
- Historical dropout and completion trends;
- The current status of American education, educational legislation, and national initiatives;
- High-performing schools; and
- National and state report cards on the current status of education in America.

The National Dropout Prevention Center/Network has 15 strategies that it has identified as being effective for dropout prevention and remediation (www.dropoutprevention.org). These strategies are a widely-recognized summary of most of the basic interventions that have been applied during the past two decades.

Early Intervention

- Family Involvement

Two decades of research on dropout prevention recognize the imperative of family involvement.

- Early Childhood Education

A history of academic success at the earliest levels precludes most of the learning stresses common to dropouts.

- Reading/Writing Programs

Early mastery of reading and writing skills provides the foundation for learning in all subjects.

Basic Core Strategies

➤ Mentoring/Tutoring

Mentoring provides the supportive, trusting relationship that treats the individual fragility that can promote dropping out of school.

➤ Service-Learning

This strategy combines community service with learning activities and is characterized by fostering a commitment between the learner and the subject matter that gives the student and the community a stake in the educational process.

➤ Alternative Schools

These schools are designed to provide attention to the student's individual social needs and the academic requirements for a high school diploma.

➤ Out-of-School Experiences

After-school, evening, weekend, community and summer-enhancement programs are designed to keep students and their families engaged at school. The stability and lack of learning acquisition gaps deters the potential for dropping out.

Maximizing Instruction

➤ Professional Development

A constant flow of information on new techniques, peer support, and innovative strategies is important to provide significant instructional reinforcers for teachers who work with at-risk youth.

➤ Learning Styles/ Multiple Intelligences

Teachers who focus on multiple intelligences and learning styles to teach the curriculum promote student educational achievement.

➤ Instructional Technologies

Technology offers a vast and ever-changing array of alternative instructional means and learning opportunities to meet student needs and learning styles.

➤ Individualized Instruction

Individualized learning programs allow at-risk students flexibility with the curriculum that focuses on a one-to-one learning environment, with specific attention to pressing needs.

Utilizing the Wider School Community

➤ Systemic Renewal

A school must be routinely engaged in reinventing itself. A continuous process of evaluating goals and objectives, successes and failures will promote a learning environment that ensures quality education for all students.

➤ Community Collaboration

Creating a community of involvement that enjoys symbiosis with the school engages all groups in a community that provides collective support to the school and its individual students.

➤ Career Education/Workforce Readiness

Workforce readiness engages the student in the larger economic community, personalizes the reality of the labor market, and recognizes competitive skills.

➤ Violence Prevention/Conflict Resolution

A safe, non-threatening, violence-free environment is crucial for educating students—particularly individuals who might be at risk academically.

There are 143 middle and secondary model programs throughout the United States in the NDPC/N Program Profile Database. This resource includes a reference number, the program name, the applicable grade level, the participation criteria, and a description of the approach that frequently includes performance data, funding information, and contacts. Nineteen states are not involved in these programs. Table 1 provides a list of the individual states that have NDPC/N-recognized dropout prevention programs and the number of programs enacted within these states.

Table 1. State NCDP/N Recognized Model Programs

State	Number of Recognized Dropout Prevention Programs	State	Number of Recognized Dropout Prevention Programs
Arizona	3	Montana	2
California	4	Missouri	2
Colorado	4	Nevada	1
Connecticut	1	New Mexico	1
Florida	16	New Jersey	1
Georgia	11	New York	11
Illinois	10	North Carolina	11
Indiana	1	Oklahoma	4
Iowa	2	Oregon	1
Kentucky	10	South Carolina	10
Louisiana	1	Tennessee	4
Maine	2	Texas	15
Maryland	4	Virginia	3
Michigan	5	Washington	1
Minnesota	2	Washington D.C.	3
Mississippi	2	West Virginia	1

Source: SBBER.

A detailed matrix summarizing the programs may be found in the appendix. The appendix lists the name and location of the program and presents intervention tactics segmented by strategy. The matrix shows which strategies are most consistently used in the 143 middle and secondary school model programs in the NDPC/N database. Table 2 provides an overview of the matrix.

Early Intervention focuses on three areas: Family Involvement, Early Childhood Education, and Reading/Writing Programs. The Early Interventions category contains the smallest number of programs in the matrix. Only 40 programs are found in this area, and they mainly deal with Family Involvement and Reading/Writing Programs. Reading/Writing Programs recognize the

Table 2. Overview of NDPC/N Active Model Programs

Strategy	Number of Programs
EARLY INTERVENTION	40
Family Involvement	34
Reading/Writing Programs	6
Early Childhood Education	0
BASIC CORE STRATEGIES	115
Mentoring/Tutoring	27
Service-Learning	9
Alternative Schooling	74
Out-of-School Experiences	5
MAKING THE MOST OF INSTRUCTION	56
Professional Development	8
Learning Styles/Multiple Intelligences	5
Instructional Technologies	10
Individualized Instruction	33
MAKING THE MOST OF THE WIDER SCHOOL COMMUNITY	50
Community Collaboration	22
Violence Prevention	2
Career Ed./Workforce Readiness	25
Systemic Renewal	1

Source: SBBER.

importance of reading and writing skills as the fundamental basis for effective learning in all subjects. The final area of the Early Intervention category is Early Childhood Education, but it does not fall into the study area due to the focus on elementary education.

Basic Core Strategies concentrate on four areas: Mentoring/Tutoring, Service-Learning, Alternative Schooling, and Out-of-School Experiences. This category, the largest in the matrix, has 115 model programs that mainly use the Alternative Schooling and Mentoring/Tutoring strategies. Alternative Schooling programs are designed to provide potential dropouts with an option to dropping out. Alternative schools pay special attention to individual student social needs and academic requirement fulfillment. Alternative Schooling programs make up a large part of this matrix; 74 programs concentrate on this area. Mentoring/Tutoring programs create supportive relationships between students and mentors/tutors that provide the necessary support needed by at-risk youth. Service-Learning programs combine community service with learning activities while integrating academic curriculum with organized service experiences. The final area of Basic Core Strategies is Out-of-School Experiences. Out-of-School programs focus on summer enhancement and after-school programs designed to eliminate students' information loss.

Making the Most of Instruction encompasses 56 model programs in the matrix focusing on the following four areas: Professional Development, Learning Styles/Multiple Intelligences, Instructional Technologies, and Individualized Instruction. The most prevalent strategy is Individualized Instruction, with 33 programs focusing on this area. Instructional Technologies promotes technology's ability to adapt to different student learning styles and is found in 10 programs. Eight programs focus on Professional Development strategies, which concentrate on teacher development and support. The last strategy in this category deals with finding new and creative ways for students to learn and solve problems. This strategy, Learning Styles, is prevalent in only five programs.

Making the Most of the Wider School Community divided into four different areas that are found in 50 programs in this matrix. Community Collaboration is emphasized in 22 programs. Violence Prevention/Conflict Resolution is found in only two programs in the matrix. The two other areas, Career Education/Workforce Readiness and Systemic Renewal, are present in 25 and 1 programs, respectively.

Achieve Inc. and The Civil Rights Project at Harvard University commissioned 14 studies that examined various aspects of the dropout problem in America. Among the topics covered was: "What is the current thinking about dropout intervention and prevention?" (Dynarski, 2001; Neildt, Stoner-Elby, & Furstenberg, 2001; Anness & Wichterle, 2001):

- Since ninth grade is seminal to high school transition, focus resources on this cohort.
- Schools-within-schools where math and language studies are doubled and high school curriculum is introduced while addressing basic skill deficiencies should be encouraged.
- Small class size.
- Class cohesion promoted by keeping students together all day.
- Schools in which the same students are together K-12.
- Small school settings organized to promote teacher autonomy, close relationships, and knowledge of each individual student.

- Increased teacher support through increased planning time and professional development.
- Personalized attention for students both in and out of the classroom.
- Academic challenge for students with “undistinguished” records.
- Formal, informal, consistent, and regular interventions for troubled students.
- A “pressing” need for collecting and utilizing more and better data at the local classroom level and identifying and tracking individual students.

In a summary of alternative learning environments produced for SEDL *Insights* (Number 6, December 1995), Stacy Aronson, a widely-recognized dropout researcher, identified a series of successful program characteristics gleaned from a number of studies:

School Culture

- Choice in involvement for both teachers and students means selecting the school wanted.
- Focus on the whole student—personal, social, emotional, and educational development.
- Warm, caring relationships.
- Expanded teacher roles.
- Sense of community.
- Therapeutic programs.
- High expectations for all students.

Organizational Structure

- Small size.
- Relative autonomy.
- Comprehensive programs.
- Counseling.
- Safe environment.
- Independent environment.

Curriculum and Instruction

- Design flexibility.
- Individual, cooperative, competency-based learning.
- Team teaching.
- Peer tutoring.

School Linked Services

- Community/parental involvement.
- Access to community health and social services.

Accountability

- Programs must be evaluated.
- Differing approaches should be validated.
- Information should be generated from evaluations.

In a concluding paragraph, Aronson writes:

It may be wiser and more effective to reduce the number of students whom the system is failing, rather than create a separate system

for only a few of them. This tension between prevention and intervention, separation and mainstreaming, runs throughout education policy decisionmaking and should not be ignored in the case of alternative education (Aronson, 1995).

Fashola and Slavin (1997), writing for the Office of Educational Research and Improvement about effective programs for at-risk students in elementary schools, provide a nice overview of model programs and concentrate on 30 national programs, of which nearly a dozen are geared toward middle and high school. They note the variety of applications, research designs, and other aspects in the service these programs provide, acknowledging that they rarely find evidence that a particular program has not been effective. However, in their review of hundreds of programs, studies, and articles, the authors believe they have recognized a set of conditions that define an effective program (Fashola & Slavin, 1997). Those characteristics are presented below:

- Clear goals—best practice programs have modest, concise, clear goals.
- Methods and materials linked to goals—procedures and materials are clearly linked to the goals.
- Constant assessment of student progress toward the goals—assessment should routinely determine student progress toward the goals.
- Well-specified components, materials, and professional development procedures—highly-structured and focused programs are most successful.
- Extensive professional development—educators of at-risk students in model programs have routine and extensive professional development requirements.
- Quality implementation focus—developed, structured, committed, and concentrated programs produce quality implementation.
- Adaptability—programs must fit their environment.

A widely quoted set of elements of programs that successfully reduce the dropout rate has been summarized by Woods (1995) and are categorized as organization/administration, school climate, service delivery/instruction, instructional content/curriculum, and staff/teacher culture. The elements

contained in these divisions are replicated more completely in the NDPC summary. However, Woods' extensive synthesis from an array of studies and policy documents contains most of the commonly designated recommendations. Distinctive suggestions are summarized below:

Policy Recommendations for the Nation, States, and Cities

- Design and support research that treats school dropout and completion as a complex problem requiring an array of approaches that address the dynamic interactions among society, psychology, and institutions. Recognize that risk factors are interrelated and have no one solution.
- Require all school systems to develop a consistent management information system on all students.
- Require schools to examine the impact of factors that impact at-risk students.
- Decentralize large schools and create small, independently-managed units.
- Hold each school accountable for its dropout rate.
- Focus on community partnerships.

District/School Recommendations

- Focus on changing institutions rather than individuals.
- Set and communicate high expectations.
- Encourage and train self-selected teachers for high-risk students.
- Provide a broad package of services that may be unique to each community. Focus on programs that motivate parental involvement.
- Establish high status alternatives and provide appropriate support.
- Use data to monitor and treat at-risk students.
- Use a team approach.

- Seek community input in needs assessment, planning, and program development.
- Broaden calendars for model programs.
- Focus on early intervention.
- Produce a plan to expand the students' view of career and educational potential.
- Create and maintain a positive, violence-free, and confusion-free school environment.
- Have a system of recognition and rewards.
- Broaden each school's sphere of influence.

One of the more comprehensive descriptions of the elements that promote an optimal learning environment for at-risk students has been provided by Barr and Parrett (2003). They report “50 proven strategies” for revitalizing school performance and at-risk students. In effect, they describe the ideal approach and environment for treating the school dropout problem. Their comprehensive discussion of strategies describes a nirvana for educators and policymakers with a desire to solve problems related to dropouts. The approaches discussed by Barr and Parrett emphasize understanding, deployment, collaboration, teaching with high expectations, and classroom communities of practice.

Understanding the Student and the Problem

- Any student may become “at-risk.”
- Recognize early warning signs.
- Predict student behavior from developmental assets.
- Value the “resilient student.”
- Recognize and manage the differences between boys and girls.
- Establish cultural connections.
- Address external controls.

- Appreciate the impact of a culture of poverty on the individual.
- Eliminate ineffective programs and understand approaches to poverty students.
- Develop and follow plans based on data and student profiles.

Deployment

- Set and follow goals, targets, and time lines.
- Create blocks of time for collaboration, planning, and development.
- Facilitate results-driven, continuous improvement.
- Cultivate small environments and alternatives and provide transitions.
- “Bully-proof” schools and classrooms.
- Promote an environment of acceptance that provides re-entry opportunities.

Collaboration

- Encourage parent and family engagement.
- Build family, school, and community partnerships.
- Create a community of support with a shared vision.
- Initiate service learning programs.
- Use the community as a classroom.
- Be a full-service, full-time, all-year school.

High-Expectancy Teaching

- Motivate students.
- Teach to multiple-intelligences.
- Create career-themed and academic schools.

- Promote high stakes test-taking skills.
- Enhance the reading level of every student by focusing on continuous assessment of reading progress.
- Encourage individualized tutoring.

Classroom Communities of Practice

- Ensure personalized Instruction.
- Employ aligned curriculum.
- Implement research-based instruction.
- Effectively use homework assignments.
- Require student competence demonstrations through projects and exhibitions.
- Incorporate technology in every aspect of the teaching-learning process.
- Promote “assessment literate” classrooms.
- Encourage and use the mentoring process, peer mediation, and student initiatives.

SECTION 7. LESSONS LEARNED FROM CURRENT PRACTICES

After reviewing hundreds of documents that discuss the elements of effective approaches to the dropout problem, it is evident that little has changed in the past decade and a half in terms of new strategies to help keep at-risk students in school. In 1987, as noted earlier in this report, Urban Superintendents' Network, composed of superintendents, researchers, and practitioners, released a document to address their main concern—the problems of dropouts—*Dealing with Dropouts: The Urban Superintendents' Call to Action* (OERI Superintendents' Network, 1987). In that report, after reviewing over 120 studies, reports, and documents from the mid-1980s, 30 strategies to hold at-risk students in school were identified. Those approaches look familiar. The 125 strategies, identified in the current review of information produced during the subsequent decade and a half, have not broadened greatly the initial information on “best bets.” Because of the crisis-reactive conditions under which the report was prepared, the superintendents recognized at the time the impracticality of waiting for empirical evidence before launching programs. Interestingly, 15 years of study has confirmed but not greatly expanded their initial suppositions. Their approaches are identified below:

- Early intervention.
- Preschool and early childhood programs.
- Monitoring student progress.
- Create a positive school climate.
- Hire effective principals.
- Provide encouragement and training for teachers and administration.
- Personal attention.
- Small classes.
- Counseling and mentors.
- Joint planning and shared decisionmaking.

- Set high expectations.
- Attendance standards.
- Academic standards.
- Summer school.
- Programs to ease the transition.
- Incentives.
- Discipline standards.
- Select and develop strong teachers.
- Schools of choice.
- Magnet schools.
- Alternative schools.
- Programs for non-English-speaking students.
- Compensatory education.
- Work experience programs.
- Initiate collaborative efforts.
- School, community, and business partnerships.
- Involve parents.
- Coping with teen pregnancy.
- Child care at school.
- Media campaigns.

The strategic concentration has not changed drastically in the last decade and a half, but the applications, the research, and the available resources have. Perhaps there are no new problems that require new solutions. Perhaps dropout problems are timeless, and our knowledge has become deeper as our systems try, fail, modify, try again, and then publish results.

Dr. Grover Whitehurst, Director, Institute of Education Science, U.S. Department of Education, spoke to the High School Leadership Summit in

October 2003 on “What Works and What’s Hopeful About High School Improvement.” He identified current problems as math and science performance, dropouts, and college preparation and described findings from efforts that included random selection and control group comparisons. He reported that:

- Alternative high schools have no effect on dropout rates.
- Restructured schools appear to have no effect on dropout rates.
- Restructured schools, alternative schools, and schools within schools appear to be ineffective.
- For high school students, the best immediate path is the GED.
- Career academies show some promise.

Whitehurst claimed that the evidence was still “out” on:

- Comprehensive school reform models.
- Smaller schools.
- District-wide reform.
- Remedial tutoring and instruction.
- Vocational focus.
- Charters and vouchers.

On the contrary, concerning dropout programs, the evidence is not “out,” but is clearly “in.” The body of research identified in the current study is patent in its evidence of the beneficial impacts found in comprehensive school reform models, smaller schools, district-wide reform, remedial tutoring and instruction, and vocational focus. Unfortunately or perhaps fortunately, dynamic conditions, democratic principles, and the absence of required governance for educational treatment programs preclude random assignment and blind testing for most programs. But, a body of work demonstrating the impact of most of these strategies on the dropout problem provides ample support for following a “trial and error, modify and replicate” model.

SECTION 8. THE ROLE OF TECHNICAL, VOCATIONAL, AND CAREER EDUCATION IN REDUCING DROPOUT RATES

Lazerson reports in an excellent summary in the *Encyclopedia of the Social Sciences* that throughout the history of U.S. education, vocational-technical education has provided solutions to problems. In the urban centers of America, leaders throughout the early to mid-1800s sought to ameliorate the impact of social change and the increase in poverty and delinquency that accompanied the growth of immigrant populations by preparing children through skill classes and industrial schools to meet the needs of jobs in “modern society.” In the late 1800s, “manual education” became part of public education, and vocational classes were designed to insure that students could function successfully in an industrial society, “whether their future lay in manual production or not.” Also, the breakdown of the traditional European apprenticeship model required public vocational education that provided a systematic replacement to help maintain the productivity of the labor force. Vocational education’s role in responding to the growing dropout problem was recognized in the early 1900s as well (Lazerson, 1972).

Throughout the first three decades of the 1900s, vocational education was called upon to help offset international industrial competition from emerging European countries like Germany, where the power of vocational education as a part of a nation’s economic policy was clear and disturbing to American industrialists. In addition, industrialists, fearing the control of unions over jobs, wanted to make sure that the skill to do a job was widely democratized.

World War I demonstrated the importance of a national commitment to vocational education; and with the Great Depression, vocational education became the “dominant theme in American education” where it has remained, though at times burdened with controversy regarding its proper role in American education and culture. Vocational education was held partially responsible for the United States’ scientific embarrassment over the 1957 Soviet successful launch of Sputnik I and was criticized to the point of being characterized as

irrelevant. However, by the 1960s vocational education was viewed as the featured approach to “urban unrest” and the “War on Poverty” and came back into favor. Since vocational education is an applied approach, is labor market oriented, and has a history of responding to a specific problem, it has often lost out in competition for prestige and resources with “academic education” and has been stigmatized as a second-class education (Lazerson, 1972). However, in the current educational environment, as we search for strategies to combat dropout problems in a world dominated by high-skill, high-technology economies, focusing on the labor market and career and vocational-technical education offers important possibilities for at-risk students.

In 1982, Mertens, Seitz, and Cox, as well as Perlmutter, reported independently on striking retention rates and falling dropout rates attributed to vocational programs. Both studies had control and matched group comparisons. In a widely quoted early study of “The Role of Vocational Education in Decreasing the Dropout Rate” (1986), Weber reported findings from a nearly 30,000 sophomore cohort sample that indicated vocational education’s promise as a major component of the national dropout prevention effort. The study reconfirmed that participation in vocational education programs promoted high school retention—in particular programs with formal career training paths and employability plans. Walter (1993) suggested vocational education programs help in dropout prevention because they:

- Actively involve the student in the education process.
- Help students experience the reinforcing power of success.
- Provide more relevance for academic studies.
- Help develop team work and social interaction through cooperative learning.
- Encourage students to see a high school diploma as a foundation for the future rather than an end. Help engage the parents by promoting discussions of career options.
- Bring local business professionals into the school setting.

An article in *Educational Resources Information Center Digest* on “Vocational Education’s Role in Dropout Prevention” presented successful strategies from a three-year study of the role of vocational education in preventing at-risk youth from dropping out in an enhanced vocational program model. The curriculum component included a strong emphasis on fundamental academics, vocational-technical education that included core occupational training, diploma and certification courses, and on-the-job-training and career exploration, employability skills training that promoted appropriate workplace characteristics and habits, and life-coping skills training that deals with the issues of daily living. Such a model, it was recommended, must be founded in a comprehensive support system that includes familiar elements like location and organization, recruitment, orientation, instruction, counseling and guidance, discipline, community collaboration, parental involvement, staff selection and development, scheduling, small class size, transportation, and district support (Imel, 1993). In a review of research, Boesel, Hudson, Deich, and Masten (1994) reported that career and technical education appeared to reduce the potential for dropping out.

In a 1998 study, Brown reported:

- The most common outcome of vocational education for at-risk students was a reduction in the dropout rate.
- Vocational programs increase the employment and earnings of at-risk youth; and
- Model vocational education programs for at-risk students focus singularly on skill development (Brown, 1998).

Woloszyk (1996) recommended that programs must go beyond dropout prevention alone and focus on the academic, occupational, and social supports that balance vocational education as a remedy to the dropout problem. Repeating that students drop out for myriad reasons, he identifies personal development, social skills development, and mentoring as being particularly important.

In a review of recent trends and statistics, Wonacott (2002) reported powerful current evidence that career and technical education have helped reduce dropout rates in a variety of career academies (Maxwell & Rubin, 2000;

Elliott, Hanser, & Gilroy, 2001). In a multi-year study of multi-site career academies involving nine high schools and 1,700 students assigned randomly, Kemple (2001), found that academies reduced dropout rates and increased completion rates for at-risk students by a statistically significant amount. Plank (2001), analyzed data from the *National Education Longitudinal Study* on over 11,000 students and concluded that the risk of dropping out was highest among students who took no career and technical education and was lowest among students who took three units. Wonacott's review was utilized to examine the widely-held belief that career and technical education can help reduce dropout rates among at-risk students and improve retention and completion.

So, there appears to be solid statistical evidence that actual CTE (career and technical education) outcomes match popular expectations—CTE actually does play a role in reducing dropouts, especially among students who are at high risk of dropping out. In particular, statistical evidence seems strongest when CTE involves an emphasis on learning both academic and CTE knowledge skills (Wonacott, 2002).

SECTION 9. MODEL DROPOUT PROGRAMS IN TENNESSEE

In Tennessee, as in most states, any number of model programs may be operational at any point in time. Currently in Tennessee middle and high schools, the literature and the model program databases identify 19 programs active at 38 sites in 12 counties.

National Dropout Prevention Center/Network

The National Dropout Prevention Center/Network identifies four programs at three locations—Knoxville, Johnson City, and Clarksville. Table 3 identifies the program, the location, the strategy, and the primary focus. Table 4 describes the program.

Table 3. Tennessee Model Programs Selected by the National Dropout Prevention Center/Network

PROGRAM	Early Intervention	Basic Core Strategies	Making the Most of Instruction	Making the Most of the Wider School Community
Homebound Alternative (Clarksville)	• Family Involvement		• Individualized Instruction	
Recovery Credit (Knoxville)		• Alternative School	• Individualized Instruction • Instructional Technology	
School/Parent Conn. (Knoxville)	• Family Involvement			
SMART (Johnson City)		• Alternative School • Tutoring		

Table 4. Tennessee Model Program Descriptions of National Dropout Prevention Center/Network Selections

Program	Description
Homebound Alternative	The program enables the child/parent to develop a plan of independent study with assistance from a homebound teacher.
Recovery Credit	The program offers students the opportunity to recover the necessary credits required to graduate in order to allow students to graduate as scheduled.
School/Parent Connection	The School and Parent Connection Program trains parents to become effective teachers at home and prepares them to be able to help their students become achievers in the school environment.
SMART	The program focuses on a specialized four-hour daily schedule, which allows students to have more direct contact with teachers. The program also consists of Behavioral Management Time in which students focus on topics such as smoking/drugs/teen conflict and stress.

Comprehensive School Reform Models

Table 5 summarizes the Comprehensive School Reform models that are currently funded in Tennessee. The table shows the district where the programs are located, the number of programs active in the district, the type of school district, and whether the model was developed externally or internally. It portrays 8 counties with 34 program sites with all district categories represented except the urban fringe of a metropolitan area.

Table 5. Comprehensive School Reform Models Currently Funded in Tennessee

District	Number of Programs in District	Locale Description	Type of Development
Bradley County	1	Rural	Externally-Developed
Grundy County	1	Rural	Externally-Developed
Hamilton County	4	Mid-size Central City	Externally-Developed
Hardeman County	1	Small Town	Externally-Developed
Johnson County Schools	1	Rural	Externally-Developed
Memphis City Schools	17	Large Central City	Externally and Locally-Developed
Metro Nashville Public Schools	3	Large Central City	Externally-Developed
Nashville-Davidson School District	4	Large Central City	Externally-Developed
Rutherford County Schools	1	Mid-Size City	Externally-Developed
Wayne County Schools	1	Rural	Externally-Developed

Table 6 shows the school, the district, the grades serviced by the model, and the identification of the reform model. The five rural and small town districts and Rutherford County have one program each, Hamilton County (Chattanooga) has four programs, as does Nashville-Davidson. Memphis, Tennessee, with the highest event dropout rate in the state, has 17 programs. Table 7 identifies the Comprehensive School Reform Model Program and provides a description of the program.

Education Trust Model Schools

As noted earlier in this report, the Education Trust analyzed data from a huge, new U.S. Department of Education database to answer the question, "How many high-poverty schools and high-minority schools nationwide have high student performance?" A "high flying" school was identified as one in which the reading and/or math performance was in the top third for the same

Table 6. Schools, Districts, Grades Served, and Comprehensive School Reform Models

School	District	Grades	Reform Model
Lake Forest Middle	Bradley County	6-8	• School Renaissance
Grundy County High School	Grundy County	9-12	• High Schools That Work
John P. Franklin Elementary	Hamilton County	6-8	• QuEST
Tyner Academy	Hamilton County	9-12	• Coalition of Essential Schools
East Lake Academy	Hamilton County	6-8	• Rigby
Orchard Knob Middle School	Hamilton County	6-8	• Rigby
Bolivar Middle	Hardeman County	6-8	• Modern Red Schoolhouse
Johnson County Middle School	Johnson County	7-8	• School Renaissance
Sheffield High School	Memphis City Schools	7-12	• Memphis City Schools Framework • School Renaissance
Airways Middle School	Memphis City Schools	6-8	• Memphis City Schools Framework
Bellevue Junior High School	Memphis City Schools	7-9	• Memphis City Schools Framework
Frayser High School	Memphis City Schools	7-12	• Memphis City Schools Framework
Geeter Middle School	Memphis City Schools	6-8	• Memphis City Schools Framework
Hillcrest High	Memphis City Schools	7-12	• High Schools That Work
Longview Middle School	Memphis City Schools	5-8	• Memphis City Schools Framework
Manassas High School	Memphis City Schools	9-12	• Memphis City Schools Framework
Mitchell High School	Memphis City Schools	7-12	• Memphis City Schools Framework
Oakhaven High School	Memphis City Schools	7-12	• Memphis City Schools Framework
Riverview Middle School	Memphis City Schools	6-8	• Memphis City Schools Framework
Sherwood Middle School	Memphis City Schools	6-8	• Talent Development Middle School
South Side High School	Memphis City Schools	9-12	• Memphis City Schools Framework
Treadwell High School	Memphis City Schools	7-12	• N/A
Westside High School	Memphis City Schools	7-12	• Memphis City Schools Framework • Reading Renaissance
Westwood High School	Memphis City Schools	7-12	• Memphis City Schools Framework
Wooddale High School	Memphis City Schools	9-12	• Memphis City Schools Framework • PLATO
Maplewood Comp High School	Nashville-Davidson	9-12	• AVID
Pearl Cohn High School	Nashville-Davidson	9-12	• AVID
Stratford Comp High School	Nashville-Davidson	9-12	• AVID
West End Middle	Nashville-Davidson	7-8	• QuEST
Holloway High School	Rutherford County Schools	9-12	• Effective Schools
Frank Hughes School	Wayne County Schools	K-12	• Success for All

grade among all schools in the state and was high-poverty, high-minority, or both high-poverty and high-minority. The project identified over 4,500 schools nationwide that fell into one or more of the three lists—49 of which were in Tennessee, with three being middle or high schools. The three schools were Ridgeway High School and White Station Middle School in the Memphis City School District and West Carroll Middle School in the West Carroll County Special School District.

Information from this report is restricted to basic identifiers and is, therefore, of limited use beyond initiating a study of individual schools to identify effective

Table 7. Tennessee Comprehensive School Reform Model Program

Model Program	Description
AVID	A program designed to prepare students in the middle who have not previously succeeded in a college preparatory path for admission to four-year universities and colleges.
Coalition of Essential Schools	The mission of this program is to create and sustain equitable, intellectually vibrant, personalized schools and to make such schools the norm of American public education.
Effective Schools	Effective schools programs are designed to identify, analyze, and solve the challenges and opportunities facing schools and students and meet the mandate of increased accountability.
High Schools That Work	Prepares students for careers and further education by improving curriculum and instruction in high schools and middle grades.
Memphis City Schools Framework	Description not available.
Modern Red Schoolhouse	The Modern Red Schoolhouse seeks to make all students high achievers in core academic subjects by building on the virtues of traditional American education and by incorporating modern technology, research evidence on how students learn best, the wisdom of teachers, and the involvement of parents who understand the needs of their sons and daughters.
PLATO	PLATO Learning is an educational software program that delivers just-in-time online assessments that are tied directly to state standards. PLATO integrates learning standards with instructional resources to upgrade the learner's skills, increase their self-esteem, discover successful employment, and become better, more self sufficient students.
QuEST	The QuEST Program is a dynamic learning community that makes a recognized difference for students through a commitment to cross-functional collaboration and application of quality-driven principles. Participation in the QuEST Program stimulates a belief in life-long learning employing collaboration and quality knowledge/skills to shape and impact the future.
Reading Renaissance	Empowers the teacher with tools and techniques that make the job of teaching more efficient and effective, while decreasing discipline problems and providing higher motivation and success in the learning process.
Rigby	Rigby is a reading program utilized by some teachers as a comprehensive instructional program in reading and writing. The program is comprised of four main components: Shared Reading, Guided Reading, Word Works, and Wonder Writers, each containing their own set of materials.
School Renaissance	Reading Renaissance provides the tools and information needed to dramatically improve reading achievement for every student.
Success for All	Success For All is an innovative reading and writing program that delivers intensive academic assistance to all students.
Talent Development Middle School	The Talent Development Middle School is a whole school reform model specifically designed for urban middle schools, which serves high-poverty populations. Its goal is to provide all students the opportunities and supports they need to achieve at world class levels and to provide all teachers with the training and support they need to deliver standards-based instruction in every lesson, every day.

practices and programs. The authors of the report warn against cross-state comparisons since some states have very few high-poverty or high-minority schools required for inclusion (Jerald, 2001).

SECTION 10. CONCLUSIONS: PROGRAM, STRUCTURAL, AND POLICY CONSIDERATIONS

The dropout problem is complex, and solutions will be multi-faceted (Harrison, 2004). There is no single, perfect, easy, or quick-fix answer to all the problems that inhabit the dropout landscape. No two individual dropouts are alike, and each situation is driven by a different mix of personal, social and family, academic, school environment, and in-school behavioral factors that interact within the school setting and in the psyche of the student. Programs that are effective with a group characterized by one set of dominant characteristics may not have applications appropriate for another. Researchers have, however, developed comprehensive information about the details of potential approaches that applied in some combination to a specific problem in a defined setting may yield results. Moreover, the dropout problem is bigger than the school and is, therefore, a problem that requires commitments both close to and far beyond the boundaries of the school. The universality of the conditions that foster a dropout problem requires wide, innovative, and flexible collaborations. Yet the urgency of the dropout problem requires that each school be continuously proactive in its efforts. The purpose of this review has been to examine model programs from across the nation to identify strategies that may have beneficial applications to the dropout problem in Tennessee.

Program Considerations

In the course of reviewing thousands of research reports, academic studies, government documents, databases, program descriptions, news releases, and conference proceedings in this research effort, this study concludes that potential remedies may be found in a formula that has to-date been underutilized, underreported, or unrecognized in the current literature. The configuration would exploit a number of currently successful elements from the following:

- Functional communities;
- Smaller learning environments;
- General Education Development (GED) options;
- Career academies; and
- Vocational-technical education.

The contribution of each of these practices in dropout prevention and remediation is reviewed below:

1. Functional Communities—Coleman (1990) described the functional community—a characteristic of many rural areas—as being one in which adults take responsibility for the children at a level beyond school and family. This level of involvement influences the children’s potential for negative engagement. Coleman refers to intergenerational closure whereby the friends and classmates of the children are the sons and daughters of friends and associates of the child’s parents. “This singular condition limits individual disengagement from mainstream, socially-acceptable community activities and discourages situations that result in irresponsible decisions among adolescents, like dropping out of school” (Harrison, 2004).
2. Small Setting/Smaller Learning Communities—Most lists of dropout prevention mechanisms identify the importance of small settings in dropout prevention, noting the negative effects on at-risk students of large-population middle schools and high schools. Currently, approximately 70.0 percent of high school students attend schools where the population is 1,000 students or greater, and more than half are enrolled in high schools where the student body is 1,500 and above (U. S. Department of Education, 2002). The “smaller learning communities” web site for the U. S. Department of Education summarizes research on setting size, indicating:
 - Smaller settings are a condition for enhancing student achievement (Williams, 1990).

- School size positively impacts student persistence, discipline, school loyalty, alcohol and drug use, self-esteem, and school loyalty (Raywid, 1995; Klonsky, 1995).
 - Effective school size ranges between 400 and 800 students (Williams, 1990).
 - School size particularly influences learning in schools with large concentrations of poor and minority students (Cotton, 1996).
 - Smaller schools are safer and more productive because student alienation is minimized and their personal connectedness is maximized through close, positive relationships with teachers (Fowler & Walberg, 1991; Gregory, 1992; Stockard & Mayberry, 1992).
3. GED—The General Education Development credential is an important alternative to dropping out of high school. Whitehurst (2003) reported that data from randomized tests indicated that, “For high school students, the short path is best (GED)” with random trials demonstrating increases in the percentage of students receiving the GED from 24.0 percent for controls to 36.0 percent among prevention programs (Whitehurst, 2003). The literature is unequivocal about the importance to the educational, economic, labor market, and personal future of at-risk students of completing the requirements to receive the GED. Originally conceived as a way of enabling returning WWII veterans to attend post-secondary institutions without returning to high school, the opportunity quickly became an important option available to all students who were experiencing difficulties in the traditional school setting. Today, it is an important and meaningful alternative for potential high school dropouts. In 2002, 336,000 16-through 19-year-olds took the GED, with about 60.0 percent passing. Many school districts in Virginia, Florida, Georgia, Louisiana, and Kansas, to name a few, have successfully incorporated GED preparation into their dropout prevention programs.

4. Career Academies—The literature describes the origin of the career academy concept in the inner-city riots in Philadelphia, where in 1969, the community’s concerns over dropout rates and high unemployment resulted in a school-to-work, school-within-a-school called a Career Academy, where a combination of rigorous academic work and a core curriculum, coupled with vocational/technical education, focused on keeping children in school. Today, there are over 2,000 Career Academies characterized by three key elements: a small learning community, college preparatory curriculum oriented toward a career area, and partnerships with employers, the community, and higher education. The results of a five-year longitudinal, controlled study of nine academies and 1,900 students by Kemple and Snipes (2000) reported that:

- Dropout rates for at-risk Career Academy students were reduced by nearly one-third.
- Career Academy students were more persistent than their counterparts in a traditional school environment in terms of attendance, courses completed, and college applications.

The Career Academy provides prospects and exposure, as well as employment goal development opportunities unavailable elsewhere.

5. Vocational-Technical Education—Again, the research is clear in identifying the beneficial impact that vocational-technical education has on the academic careers of students at risk of dropping out. Unfortunately, vocational-technical education may be an underutilized asset in the effort to minimize the potential for dropping out. For example, 17.0 percent of the NDPC/N model programs utilized career education and workforce readiness, and 19.0 percent of the comprehensive school reform models reviewed for this project had vocational-technical education components. This suggests underutilization of a demonstrated approach to ameliorating the dropout problem.

Structural Considerations

Alternative program strategies foster structural considerations like:

- Schools subdivided into units no larger than 300/500 students who would remain together throughout middle and high school.
- Divisions (townships, departments, schools) guided by a hierarchy of students, teachers, and administrators responsible to the divisions' inherent constituents, as well as a principal directing activity as a chief executive officer (governor, headmaster). Besides administrative responsibilities, division heads and the CEO will have duties each day *akin to running for office* with those inherent constituents (students, teachers, parents, community agencies/resources, and business leaders).
- Divisional organization and curriculum modeled after the Career Academy with appropriate vocational components.
- A GED Exit Option Model developed in collaboration with the American Council on Education as a part of the standard curriculum in each division would enable students who might not graduate with their cohorts an alternative graduation choice while receiving a standard high school diploma. Following the Florida Department of Education model, the student must meet the following requirements to exercise the option:
 1. Be a currently enrolled student 16 years of age or older.
 2. Be enrolled in courses required for high school graduation.
 3. Be over age for cohort group, behind in credits, or have a low GPA.
 4. Have a 7.0 or above reading level.
 5. Pass the state's academic performance proficiency test.
 6. Pass the GED exam.
- A research approach devised to test a recipe for improvement—specifically engineered for the local setting based on a combination of the elements and structure described above.

Policy Considerations

Secondary education as it currently exists was designed to meet different needs in an earlier era. Just as most of today's successful social and business organizations change and adjust rapidly to meet current requirements of a dynamic environment, education must follow suit. The modern high school will become more effective to the extent that the organization and structure reflect current findings from research that identify successful practices and outcomes.

- Policies that promote relevance, autonomy, flexibility, and creativity in a framework free of the “fear of failure” in local districts and schools encourage productive alternatives.
- States that insure access to resources create the potential for the development of effective, relevant alternatives.
- Research and development are the hallmark of the potential for excellence. Accountability measures maintain the integrity of a program. Component and structural mixes must be evaluated, validated, modified as needed, and redeployed as appropriate.
- As part of the state plan for improving secondary education for 2005/2006, a large school with a moderately challenging dropout problem should be employed as a demonstration laboratory to test the efficacy of the measures identified above, serving as the baseline for enhancement and statewide implementation as warranted.

Implementing measures to foster change in secondary institutions is very challenging. It is a painful, complex, frustrating, and frequently unrewarding process in the short-term. But, sustaining a research and development approach to solving the dropout dilemma will potentially, in the long-term, produce currently unrecognized benefits to both the target and the cohabitant population. However, courage and patience from policymakers, educators, community leaders, business leaders, parents, and students will be necessary if substantial and widespread progress is to be realized.

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**APPENDIX. NATIONAL DROPOUT
PREVENTION CENTER/
NETWORK MODEL PROGRAM
MATRIX**

Program	State	Early Interventions	Basic Core Strategies	Making Most of the Instruction	Community
C.O.R.D.S.	GA				• Workforce Readiness
T.O.P.S	GA	• Family Involvement	• Alternative School	• Individualized Instruction	• Workforce Readiness
Jenks Alternative Center	OK		• Alternative School		• Workforce Readiness
Wayne Enrichment	IN	• Family Involvement	• Service learning	• Individualized Instruction	
Attendance Improvement	TX	• Family Involvement	• Alternative School	• Instructional Technology	• Community Collaboration
Alee Academy	FL		• Alternative School	• Individualized Instruction	• Workforce Readiness
Hamilton-Jefferson	IL		• Alternative School	• Instructional Technology	
Jefferson County School	KY		• Alternative School		
"School of Choice"	FL		• Alternative School	• Individualized Instruction	• Workforce Readiness
Feigus Falls Program	MN		• Alternative School	• Individualized Instruction	
Cobb County Alternative School	GA		• Alternative School		
Latin/Chicano Program	CA	• Reading/Writing Programs			• Workforce Readiness
Alt. Learning Environment	OR		• Alternative School	• Individualized Instruction	
A.C.E. Program	AZ		• Alternative School		
Recovery Credit	TN		• Alternative School	• Individualized Instruction	
G.A.S.	GA		• Alternative School	• Instructional Technology	• Community Collaboration
Year Round School	KY		• Alternative School		
Judson Learning	TX		• Year Round School		
			• Alternative School		• Workforce Readiness
S.V.C.	GA		• Alternative School	• Instructional Technology	• Workforce Readiness
USF/Oasis Program	FL		• Service learning		• Workforce Readiness
Recovery Academy	GA		• Alternative School		• Community Collaboration
Aspen High School	IL		• Mentoring		
Nenana School	MT	• Family Involvement	• Alternative School		• Workforce Readiness
			• Tutoring		
Arapahoe School	MT	• Family Involvement	• Alternative School		• Violence Prevention
Accelerated Schools Project	CT		• Mentoring		
Kids in Action	KY		• Tutoring		
Project New Beginning	TX		• Alternative School		
Project Safety Net	TX		• Mentoring	• Individualized Instruction	
Accelerated Basic Clinic	TX		• Alternative School	• Individualized Instruction	
U.S. Basics	MD		• Alternative School		• Workforce Readiness

Program	State	Early Interventions	Basic Core Strategies	Making Most of the Instruction	Community
Tri-At-Risk Project	NC	• Family Involvement	• Service learning • Mentoring		
CASES	TX		• Alternative School		
Sense of Self Curriculum	MI				
College Corps	MD		• Alternative School	• Instructional Technology	
In School Suspension	FL				
Homebound Alternative	TN	• Family Involvement		• Individualized Instruction	
A.C.E. Program	TX		• Alternative School	• Learning Styles	
Project Volter	TX		• Mentoring		• Workforce Readiness • Community Collaboration • Workforce Readiness
School-to-Work	FL		• Service learning		
Academy	FL		• Alternative School		
Kaleidescope	GA		• Alternative School	• Learning Styles	
Immigrant Students	MD	• Family Involvement	• Counseling		
TAOEP	IL		• Alternative School		• Workforce Readiness
Opportunity Knocks	CA		• Mentoring		• Workforce Readiness
Parent/Child Intervention	IL	• Family Involvement			• Community Collaboration
Project Transition	KY	• Family Involvement			• Community Collaboration
Reconnecting Youth	TX				• Community Collaboration
Project Yes	VA		• Mentoring		• Community Collaboration
Hostos Lincoln Academy	NY	• Family Involvement	• Alternative School		
Adult-Led Group	NY	• Family Involvement	• Alternative School		
CVYP	TX	• Family Involvement	• Out-of-School Experiences • Tutoring	• Individualized Instruction	
Quad-County Tech Prep	FL				• Workforce Readiness • Community Collaboration
Families in Action	KY	• Family Involvement			
Students in Action	KY		• Service learning • Mentoring		
RESOLVE	NC		• Alternative School		
TEAM	FL		• Alternative School		
Union Alt. School	OK		• Alternative School		
Dropout Recovery	TX				
AIL	TX		• Service learning		
Higher Learning	SC		• Alternative School		• Workforce Readiness • Community Collaboration • Workforce Readiness
Education Is Essential	GA				
Project Intercept	CO			• Individualized Instruction	
Tutoring Project	SC	• Family Involvement	• Tutoring		• Community Collaboration
Graduation Enhancement	SC	• Family Involvement	• Alternative School	• Individualized Instruction	• Workforce Readiness

Program	State	Early Interventions	Basic Core Strategies	Making Most of the Instruction	Community
Project Transition	KY		<ul style="list-style-type: none"> • Tutoring 		<ul style="list-style-type: none"> • Workforce Readiness
Dropout Prevention	SC		<ul style="list-style-type: none"> • Alternative Learning 		
Opportunity School	SC		<ul style="list-style-type: none"> • Alternative School 	<ul style="list-style-type: none"> • Individualized Instruction 	
College Diploma Program	IA			<ul style="list-style-type: none"> • Individualized Instruction 	
Project ACE	LA		<ul style="list-style-type: none"> • Alternative School 		<ul style="list-style-type: none"> • Workforce Readiness
Freshmen Transition	NC		<ul style="list-style-type: none"> • Mentoring 		
Connections Stay	WA				
Wax2 the Max	TX		<ul style="list-style-type: none"> • Alternative School 		
FL Dropout Prevention	FL		<ul style="list-style-type: none"> • Tutoring 		
Student Support	NC	<ul style="list-style-type: none"> • Family Involvement 	<ul style="list-style-type: none"> • Alternative School 		
Project GOAL	SC		<ul style="list-style-type: none"> • Alternative School 		
Teen Parenting	MS		<ul style="list-style-type: none"> • Tutoring 		
Elementary Assist.	KY		<ul style="list-style-type: none"> • Alternative School 	<ul style="list-style-type: none"> • Professional Development 	<ul style="list-style-type: none"> • Workforce Readiness
Monitoring Database	NM			<ul style="list-style-type: none"> • Professional Development 	
VITAL LINK	FL		<ul style="list-style-type: none"> • Out-of-School Experience 		<ul style="list-style-type: none"> • Workforce Readiness
Community Mentorship	MS	<ul style="list-style-type: none"> • Reading/Writing Programs 	<ul style="list-style-type: none"> • Mentoring 		<ul style="list-style-type: none"> • Community Collaboration
Magic of the Mind	CA		<ul style="list-style-type: none"> • Alternative School 		
Quest Alt. Program	MI	<ul style="list-style-type: none"> • Family Involvement 	<ul style="list-style-type: none"> • Alternative School 		
Accelerated H.S.	MO	<ul style="list-style-type: none"> • Family Involvement 		<ul style="list-style-type: none"> • Instructional Technology 	
Continuing Education	SC		<ul style="list-style-type: none"> • Mentoring 		
A.C.E. Program	AZ		<ul style="list-style-type: none"> • Alternative School 	<ul style="list-style-type: none"> • Individualized Instruction 	
Young Leaders	FL		<ul style="list-style-type: none"> • Out-of-School Experience 		
FHA/HERO	VA		<ul style="list-style-type: none"> • Service Learning 		<ul style="list-style-type: none"> • Career Education
Statewide Alt. Grant	OK		<ul style="list-style-type: none"> • Alternative School 		
YALA	NY	<ul style="list-style-type: none"> • Literacy Program 	<ul style="list-style-type: none"> • Alternative School 		<ul style="list-style-type: none"> • Violence Prevention
Project YES	VA		<ul style="list-style-type: none"> • Mentoring • Service Learning 		
Buddy Program	NC				<ul style="list-style-type: none"> • Community Collaboration
Meramec Valley	MO	<ul style="list-style-type: none"> • Family Involvement 		<ul style="list-style-type: none"> • Instructional Technology 	
Brevard Compact	FL		<ul style="list-style-type: none"> • Mentoring 		
Lowell AAA	MI	<ul style="list-style-type: none"> • Family Involvement 	<ul style="list-style-type: none"> • Alternative Education 		<ul style="list-style-type: none"> • Community Collaboration
Refocusing At-Risk	GA		<ul style="list-style-type: none"> • Alternative School 		
Have Truancy	KY	<ul style="list-style-type: none"> • Family Involvement 			
Extended Day Program	NC		<ul style="list-style-type: none"> • Alternative School 	<ul style="list-style-type: none"> • Individualized Instruction 	
Brentwood Contact	NY		<ul style="list-style-type: none"> • Mentoring 	<ul style="list-style-type: none"> • Professional Development 	

Program	State	Early Intervention	Basic Core Strategies	Making the Most of Instruction	Community
Pass School	AZ		<ul style="list-style-type: none"> Alternative School Service Learning 		
OASIS	NY	<ul style="list-style-type: none"> Family Involvement 	<ul style="list-style-type: none"> Out-of-School Experience 		
TEAM	FL		<ul style="list-style-type: none"> Alternative School 		
Dewey Center	MI	<ul style="list-style-type: none"> Reading/Writing Program 	<ul style="list-style-type: none"> Service Learning 		
Refocusing At-Risk	GA		<ul style="list-style-type: none"> Alternative School 		
Hobbies for Learning	NC			<ul style="list-style-type: none"> Learning Styles Individualized Instruction Instructional Technology 	
Community Prep School	CO		<ul style="list-style-type: none"> Alternative School Alternative School Mentoring Alternative School Alternative School 		
Magic Me!	MD				
C.A.R.E.	IL		<ul style="list-style-type: none"> Alternative School 	<ul style="list-style-type: none"> Individualized Instruction 	
H.O.P.E. School	NC		<ul style="list-style-type: none"> Alternative School 		
HITECC	FL		<ul style="list-style-type: none"> Alternative School Alternative School Out-of-School Experiences 	<ul style="list-style-type: none"> Individualized Instruction Instructional Technology 	
Mountaineer Academy	WV				
At-Risk-African American Youth	SC			<ul style="list-style-type: none"> Professional Development 	
SMART	TN		<ul style="list-style-type: none"> Alternative School Tutoring 		
Genesis	MI		<ul style="list-style-type: none"> Alternative School 	<ul style="list-style-type: none"> Learning Styles 	
Tulsa Project	OK	<ul style="list-style-type: none"> Literacy Programs 	<ul style="list-style-type: none"> Alternative School 	<ul style="list-style-type: none"> Individualized Instruction 	
TOPS	DC	<ul style="list-style-type: none"> Family Involvement 	<ul style="list-style-type: none"> Mentoring 		
H.S. Redirection	NJ		<ul style="list-style-type: none"> Alternative School Tutoring 	<ul style="list-style-type: none"> Individualized Instruction 	<ul style="list-style-type: none"> Community Collaboration
Creative Rapid Learning	TX		<ul style="list-style-type: none"> Alternative School 	<ul style="list-style-type: none"> Individualized Instruction 	
Phoenix H.S. Program	GA		<ul style="list-style-type: none"> Alternative School 		
Ravine Gardens	FL		<ul style="list-style-type: none"> Service Learning 		
Success by 6	NV	<ul style="list-style-type: none"> Family Involvement 			<ul style="list-style-type: none"> Community Collaboration
PACES	SC		<ul style="list-style-type: none"> Alternative School 	<ul style="list-style-type: none"> Individualized Instruction 	
Denver Kids	CO	<ul style="list-style-type: none"> Family Involvement 	<ul style="list-style-type: none"> Mentoring 		
Teen Parenting Program	CO		<ul style="list-style-type: none"> Tutoring 		<ul style="list-style-type: none"> Community Collaboration
Parental Assistance	SC	<ul style="list-style-type: none"> Family Involvement 			
Community School	ME		<ul style="list-style-type: none"> Alternative School 	<ul style="list-style-type: none"> Individualized Instruction 	<ul style="list-style-type: none"> Workforce Readiness
WAVE In Schools	DC		<ul style="list-style-type: none"> Alternative School 	<ul style="list-style-type: none"> Individualized Instruction Instructional Technology 	<ul style="list-style-type: none"> Workforce Readiness
River Valley School	ME		<ul style="list-style-type: none"> Alternative School 		

Program	State	Early Intervention	Basic Core Strategies	Making the Most of Instruction	Community
Brentwood Counseling	NY	• Family Involvement			• Community Collaboration
Brentwood Outreach	NY	• Family Involvement	• Alternative School		• Community Collaboration
H.S. Equivalency	NY		• Alternative School	• Individualized Instruction	
Work Experience	NY			• Learning Styles	• Workforce Readiness
Early Intervention	NY			• Professional Development	
Dropout Prevention	NY	• Family Involvement			
IIS	IL		• Tutoring		• Community Collaboration
Bridge Program	IL				
Evening High School	IL		• Alternative School		
Late Afternoon Program	IL		• Alternative School	• Individualized Instruction	
Proviso Project	IL	• Family Involvement		• Professional Development	• Community Collaboration
Project CERES	NC				
Student Assistance	NC				
JCHS	KY		• Alternative School	• Professional Development	• Community Collaboration
Attitudes	NC			• Professional Development	
Kanesville Alt. H.S.	IA	• Family Involvement	• Alternative School	• Individualized Instruction	
Integrated Initiative	D.C.				• Systemic Renewal
East Grand Forks	MN	• Family Involvement	• Alternative School		
Cooperative School	TX		• Alternative School	• Individualized Instruction	
Food from the Hood	CA		• Service Learning		
Bilingual Program	FL	• Reading/Writing Programs		• Individualized Instruction	
School/Parent Conn.	TN	• Family Involvement	• Tutoring		